

Amendments to the Specification

Please amend paragraph [0038] as follows:

[0038] Regardless, coating 30 comprises a therapeutic dose of radioactive material. In the particular exemplary Fig. 1 embodiment, such is depicted as comprising a radioactive isotope 32 that has been sorbed onto the outer surface of ceramic coating 30. Such material might permeate some or much of ceramic coating 30 depending on coating 30's porosity and outer surface smoothness, but is preferably received at the outermost portions of ceramic coating 30. This provides the radiochemical to be adjacent the inner surface of metallic cylinder 12, preferably minimizing the amount of self-absorption from internal components of the seed, and thereby maximizing the amount of radiation released from the seed, as well as enhancing uniform isotropy of the emitted radiation. An exemplary preferred radioactive material is cesium-131. However, any radioisotope is contemplated, whether existing or yet-to-be developed or isolated. By way of example only, examples include iodine-125, ~~palladium-123~~ palladium-103, cesium-137, yttrium-90, strontium-90 and other radioisotopes of palladium, cobalt, silver, copper, iodine, uranium, thorium, actinium, rare earth metals and actinides. Further by way of example only, an exemplary preferred characteristic radiation emission is from 20 keV to 100 keV, with a specific example

being 29 keV. Further by way of example only, exemplary preferred half-lives of manufactured seed are from 8 days to 100 days.

Please amend paragraph [0041] as follows:

[0041] The exemplary Figs. 1 and 2 embodiments depict the inorganic crystalline ceramic coating 30/30a as coating all of tube exterior surface 24, and radioisotope ~~30/32a~~ 32/32a being received all along tube 22/22a. By way of example only, Fig. 3 illustrates an alternate embodiment brachytherapy implant seed 10b. Like numerals from the first described embodiment are utilized where appropriate, with differences being indicated with the suffix "b" or with different numerals. Fig. 3 depicts some center or core portion 40 which is either not coated with ceramic material or is effectively masked with a material that will not adsorb/absorb the radioisotope. Thereby, the therapeutic dose of radioactive material coats less than all of the tube exterior surface. Exemplary masking materials include polyacrylonitrile and waxes. In some implementations, such might be desirable to enhance uniform isotropy. An exemplary preferred length of region/portion 40 is from 1.0mm to 4.0mm, with such being centered relative to the length of metallic cylinder 12.

Please amend paragraph [0048] as follows:

[0048] Thereafter, a therapeutic dose of radioactive material is sorbed onto the ceramic coating. One preferred manner of doing so is contacting the ceramic coated exterior surface with a solution comprising radioisotope ions having an affinity for the ceramic material and/or ion exchange material within the ceramic material. For example, and by way of example only, a highly purified and accurately known amount of radioactivity in solution (mCi/ml) can be transferred to the ceramic coated cores by adsorption and/or absorption to the outer surfaces thereof by immersing the cores individually in 0.1ml to 0.4ml of solution for exemplary time periods of from 1 minute to 24 hours. Again, an exemplary preferred radiochemical is cesium-131. The solution and core are preferably gently agitated during the treatment time. A specific example solution comprised 0.25 ml of water containing 96.4 ~~millicuries~~ milliCuries of cesium-131 per ml for treating a single core, with the treatment time being 14.5 hours, and with the solution being at ambient room temperature and pressure conditions. Greater than 88% of the radioactivity was transferred to the core. The solution can be acid, base, aqueous or non-aqueous largely dependent upon the isotope and the ceramic material (including any ion

exchange material, if any) that are utilized. The radioactive loaded cores are then removed from the solution, and preferably air-dried for one hour with the aid of a heat lamp.